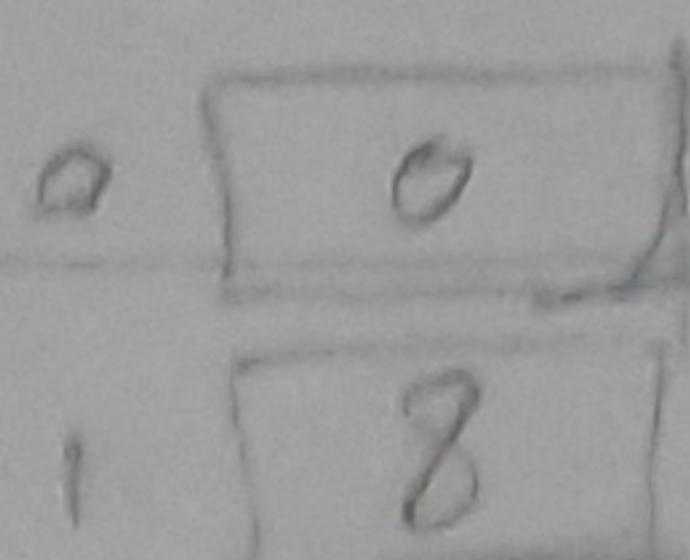
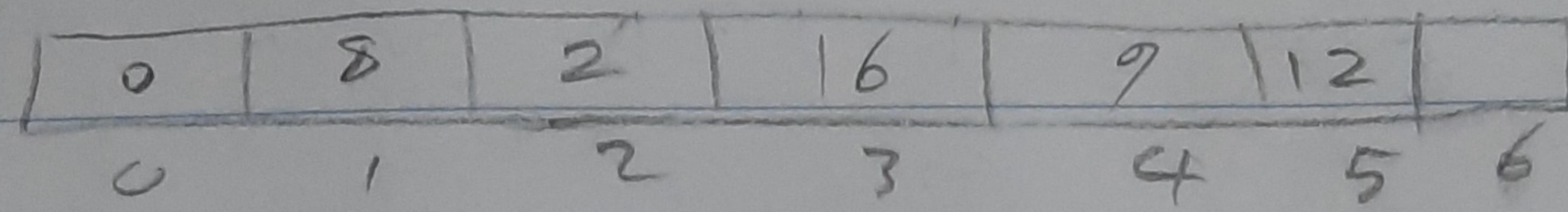
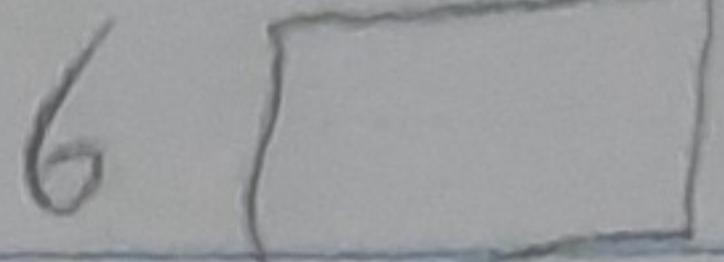
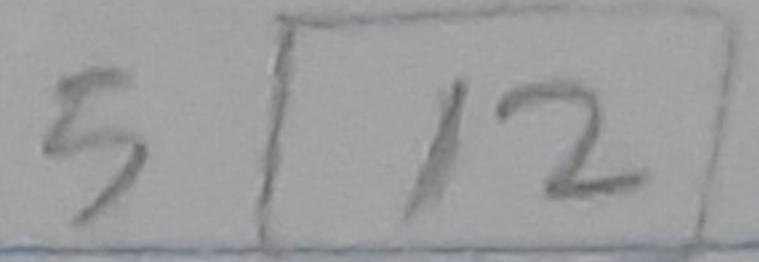
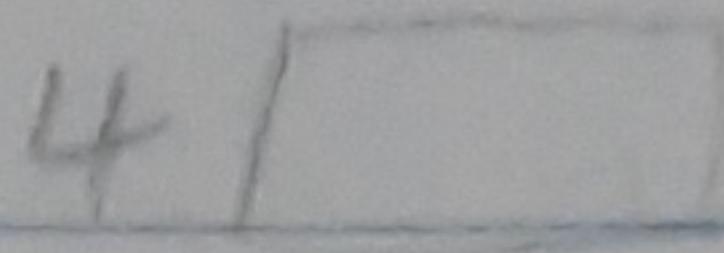
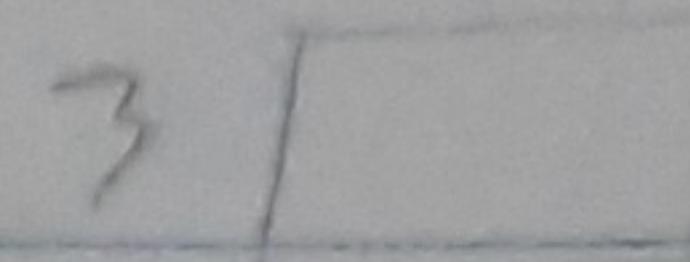
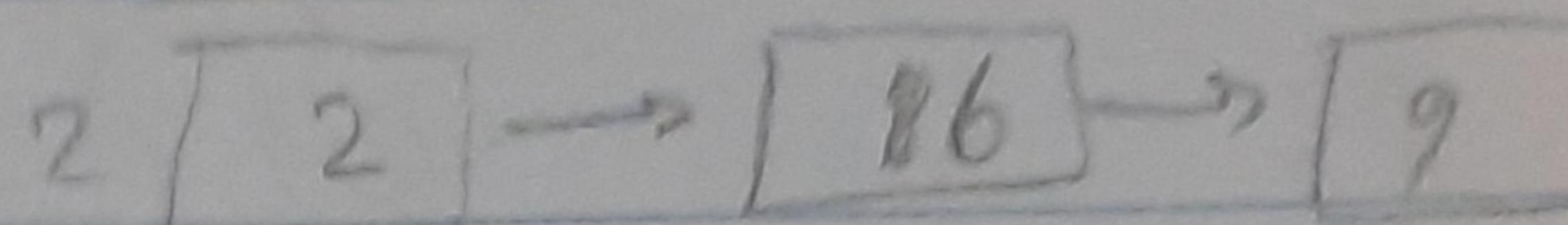


0, 2, 8, 16, 12, 9



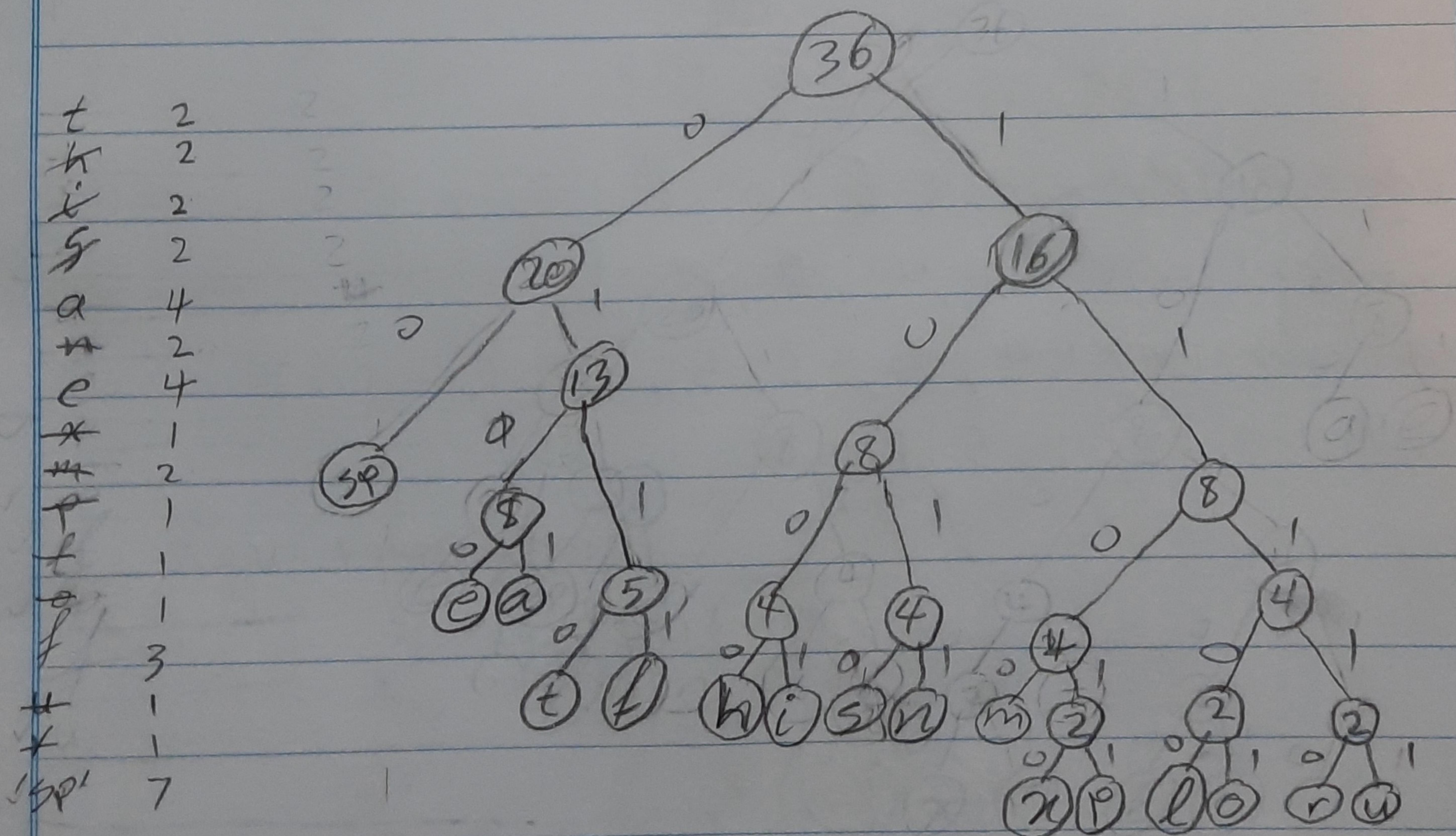
(1)



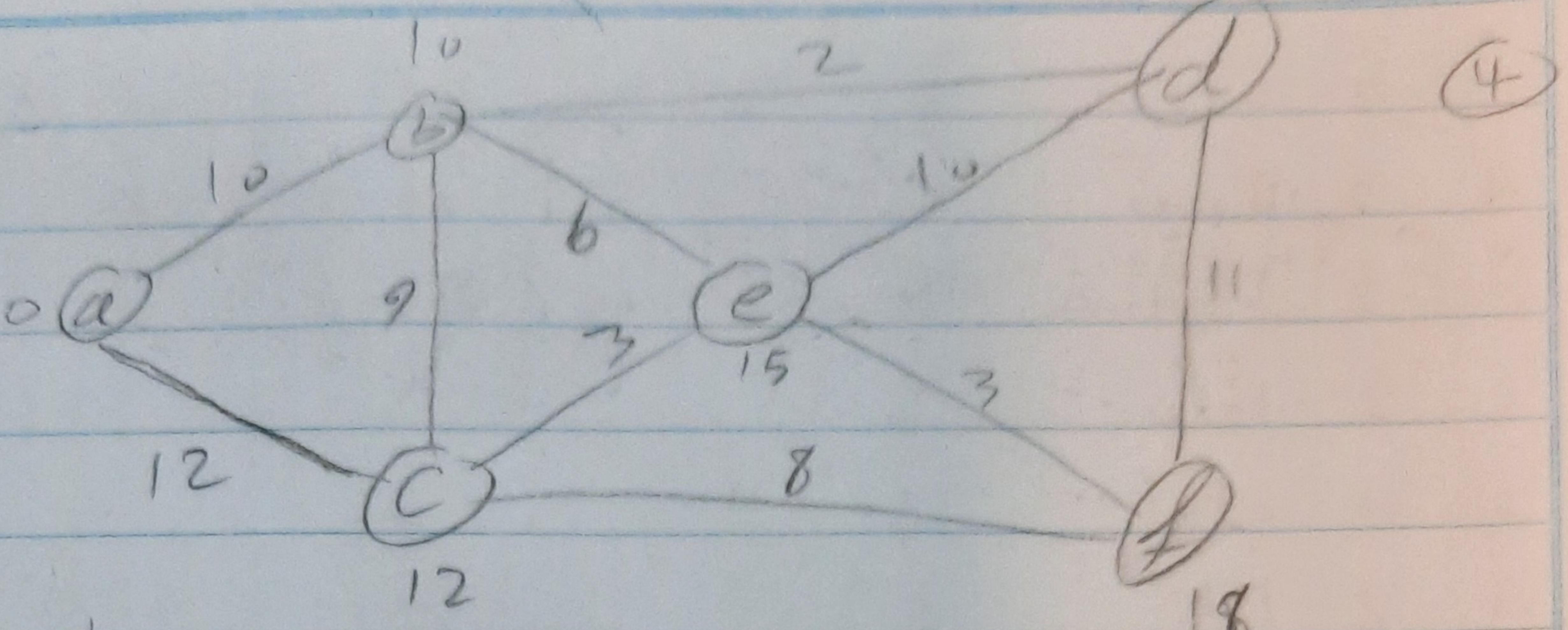
(2)

this is an example of a huffman tree

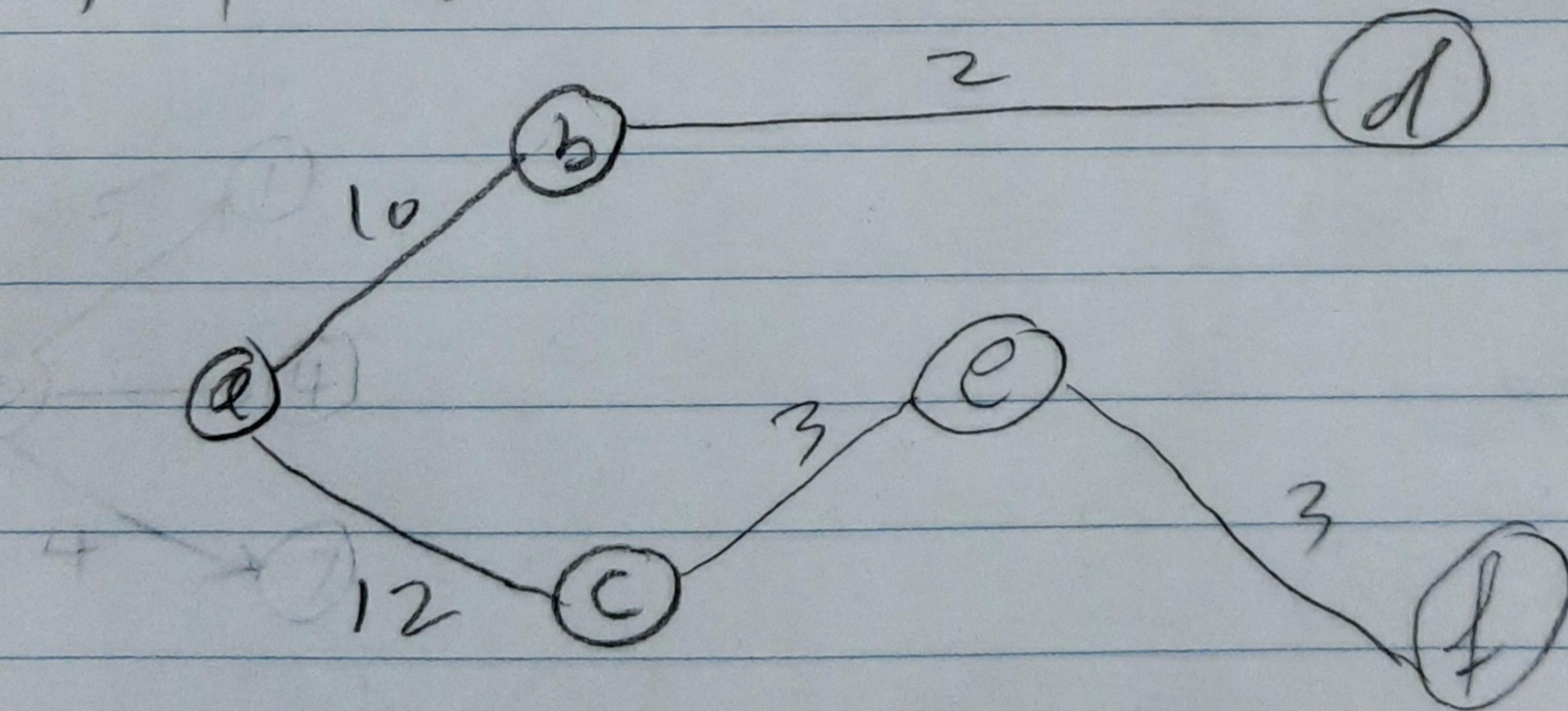
(3)



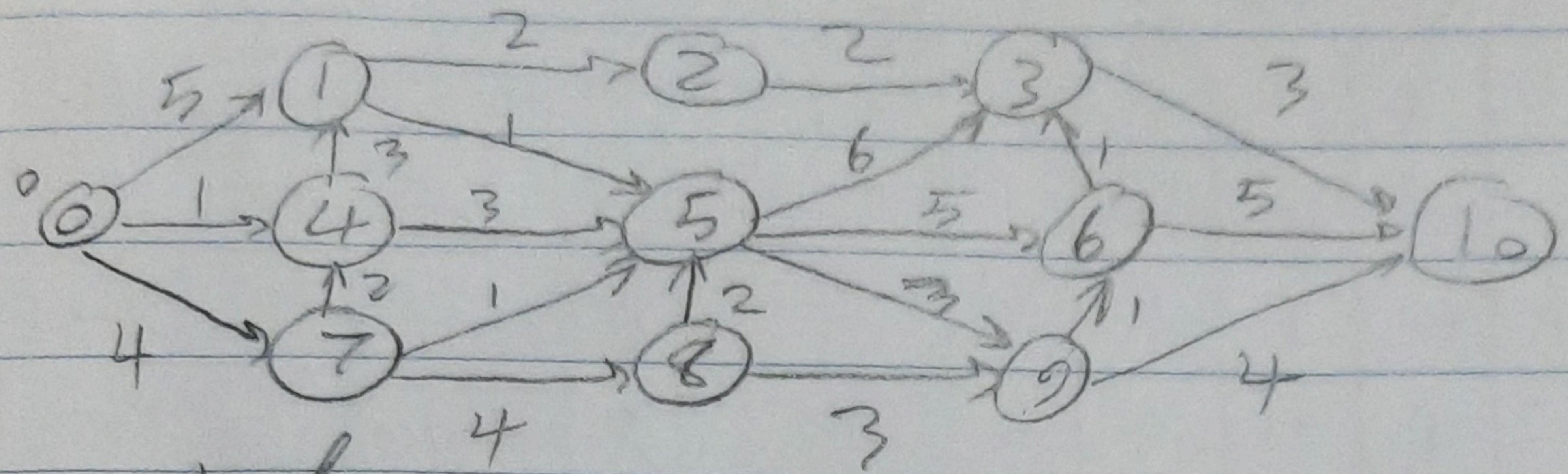
t	2	0110	6		48	718
h	2	1000	8		30	136
i	2	1001	8		5.8	
s	2	1010	8			
a	4	0101	16			
n	2	1011	8			
e	4	0100	16			
x	1	11010	5			
m	2	1100	8			
p	1	11011	5			
l	1	11100	5			
o	1	11101	5			
f	3	0111	12			
u	1	11111	5			
r	1	11110	5			
sp	7	00	14			



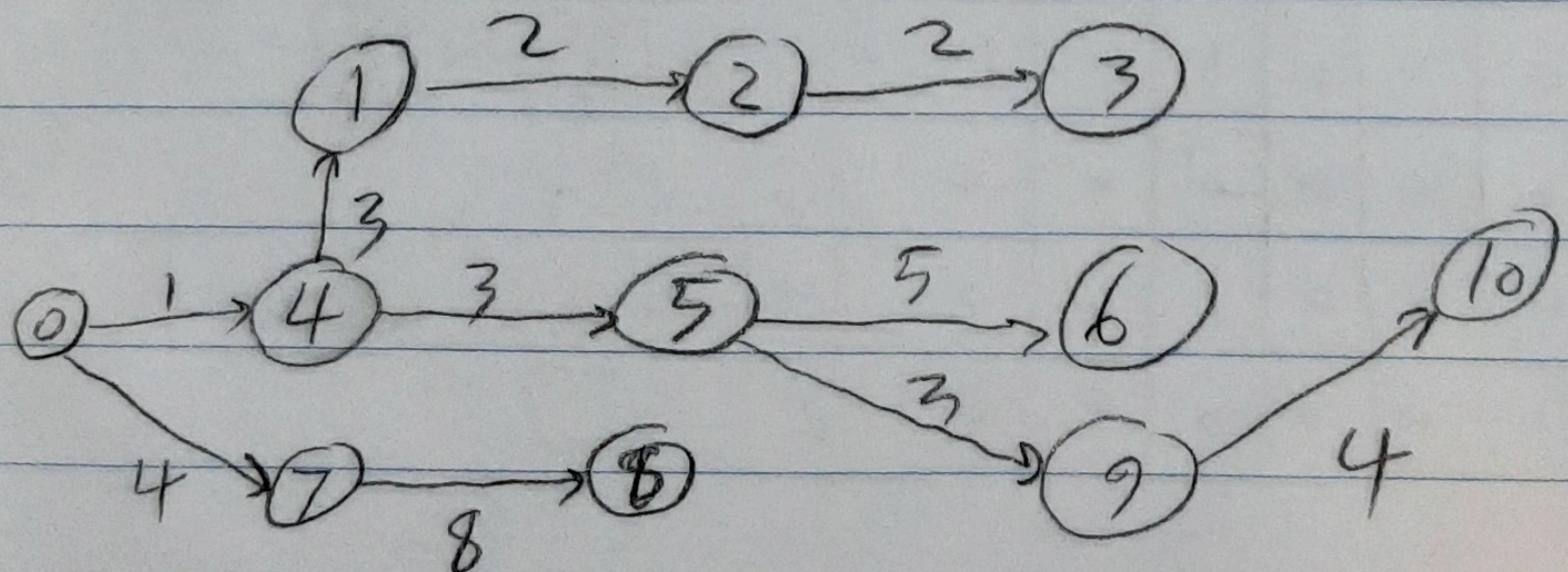
v	d
a	0
b	10
c	12
d	12
e	15
f	18



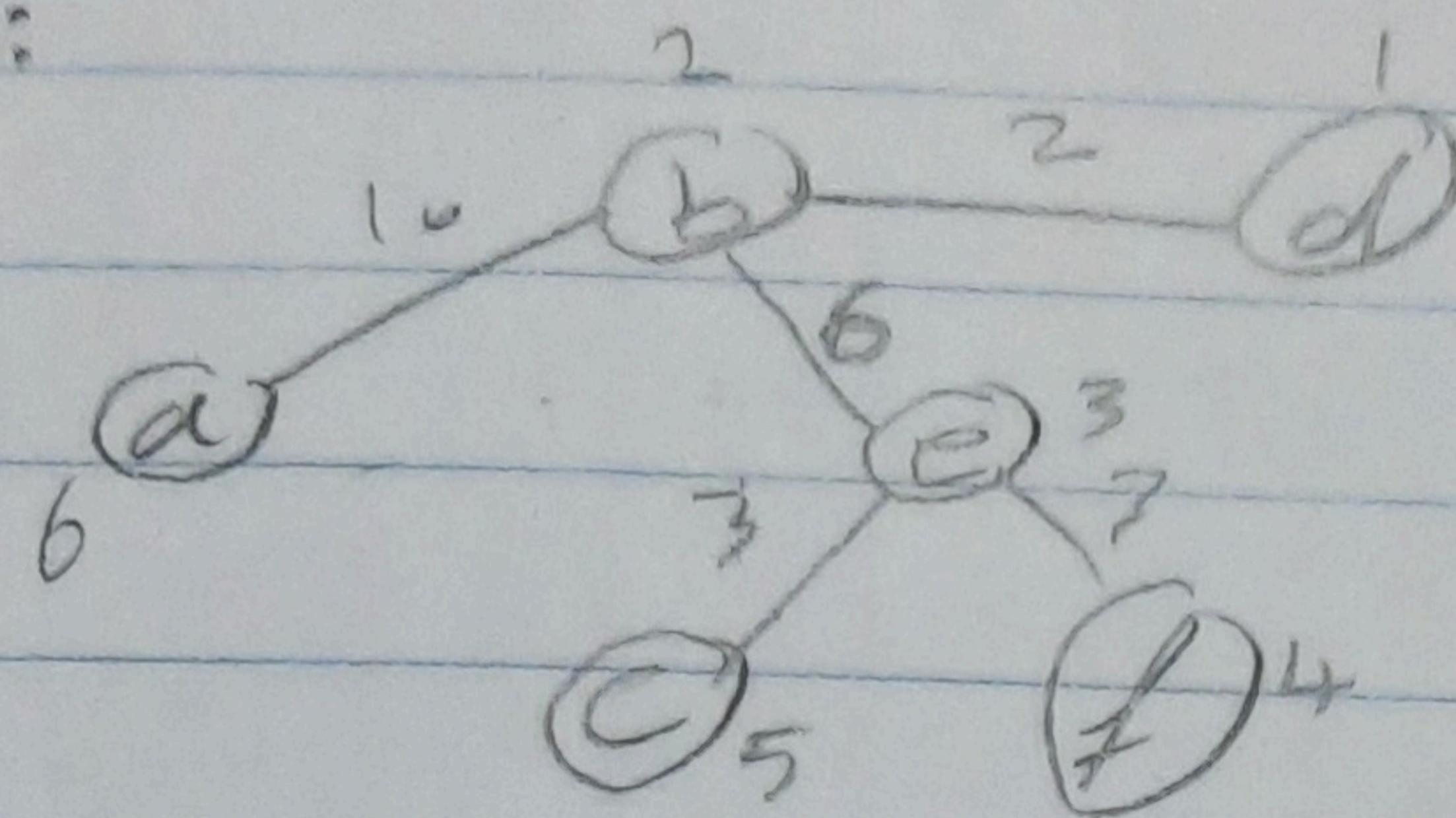
Cont 4



v	l
0	0
4	1
1	4
7	4
8	8
5	4
2	6
3	8
9	7
6	9
10	11

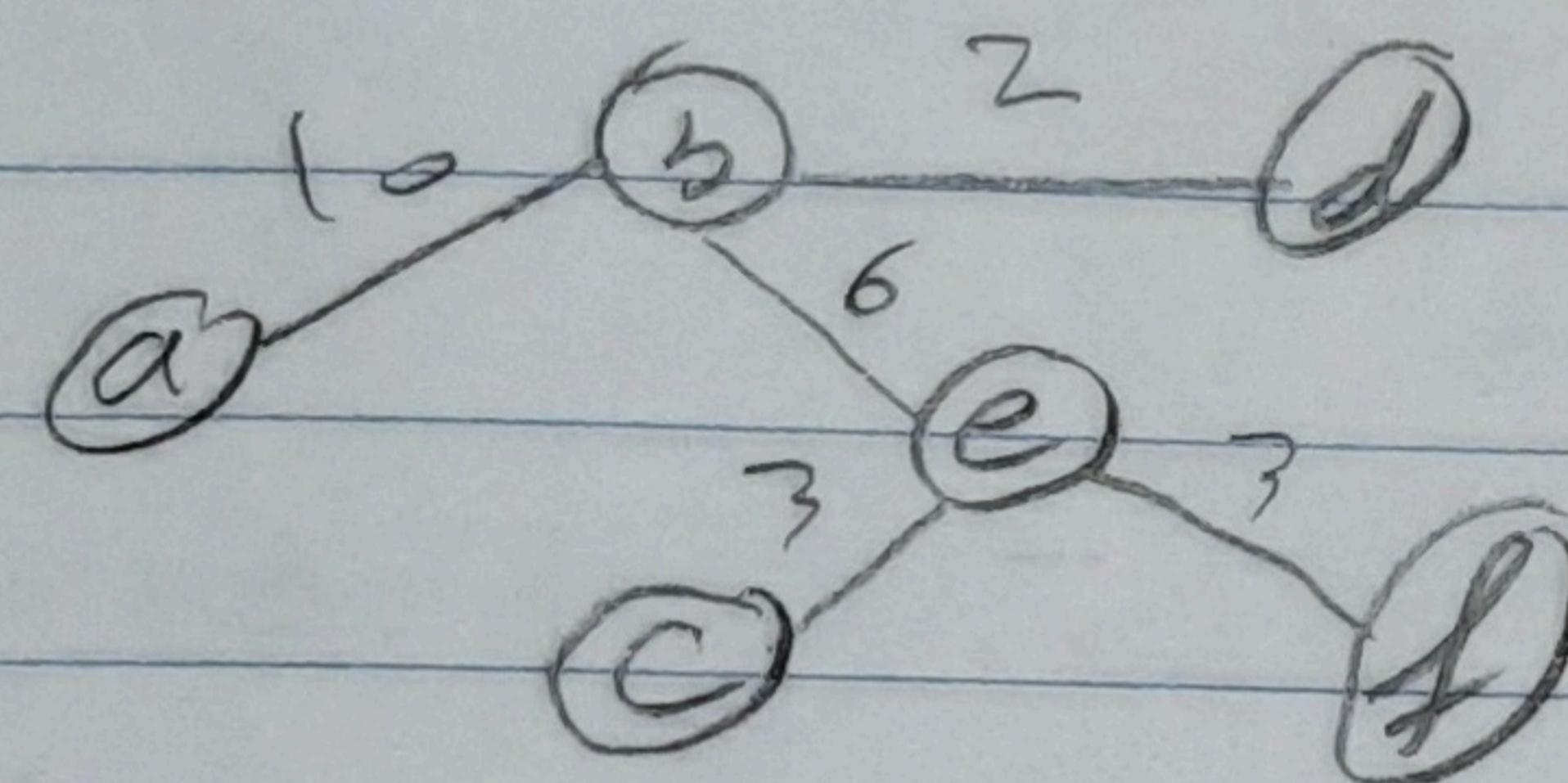


Prim's:

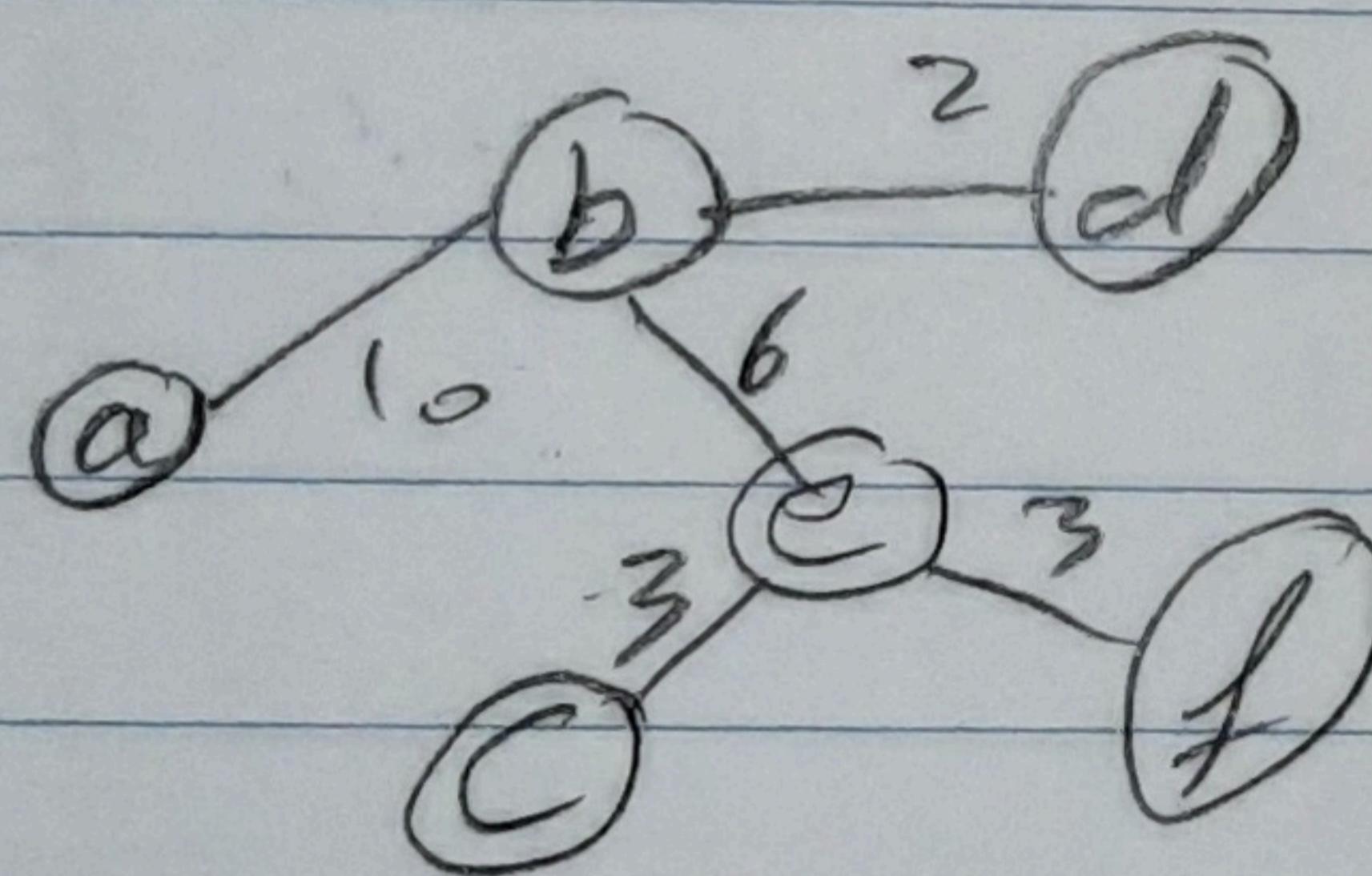


(5)

Kruskal's:

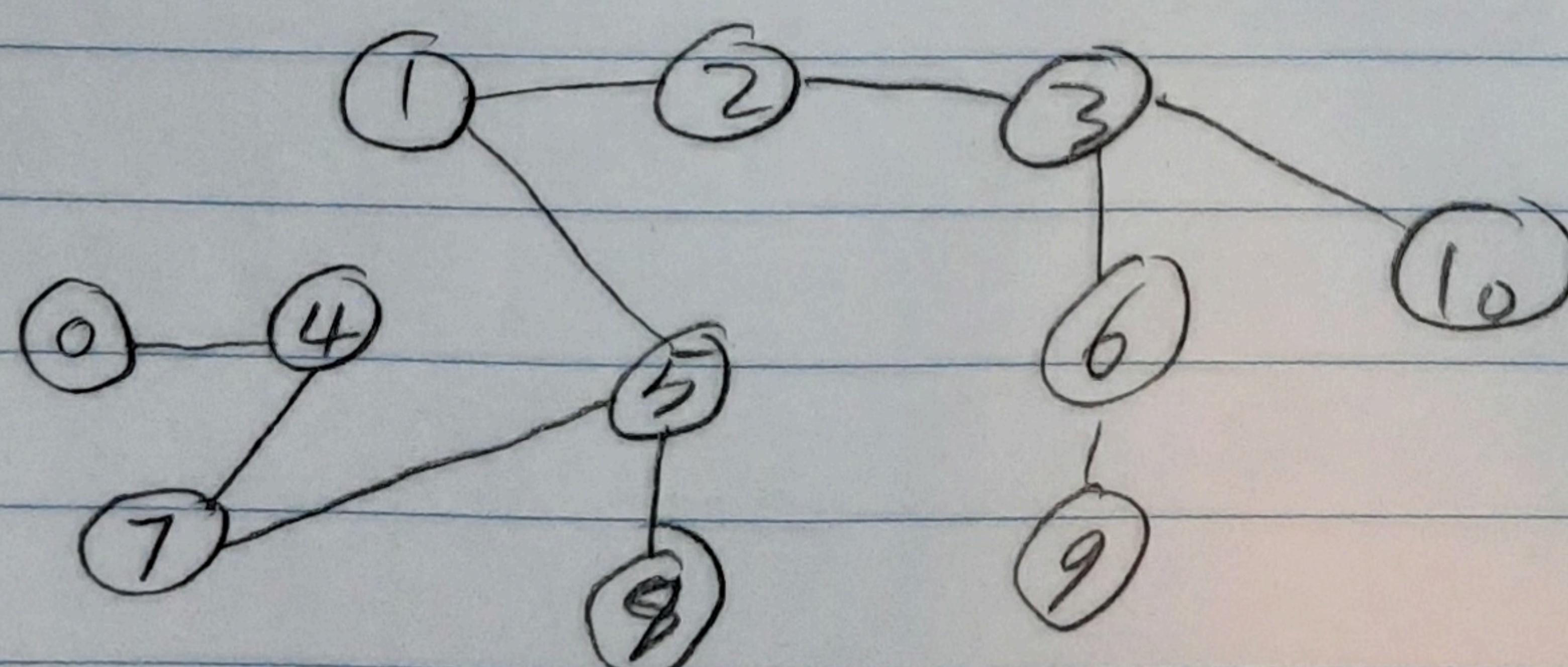


Boruvka's:

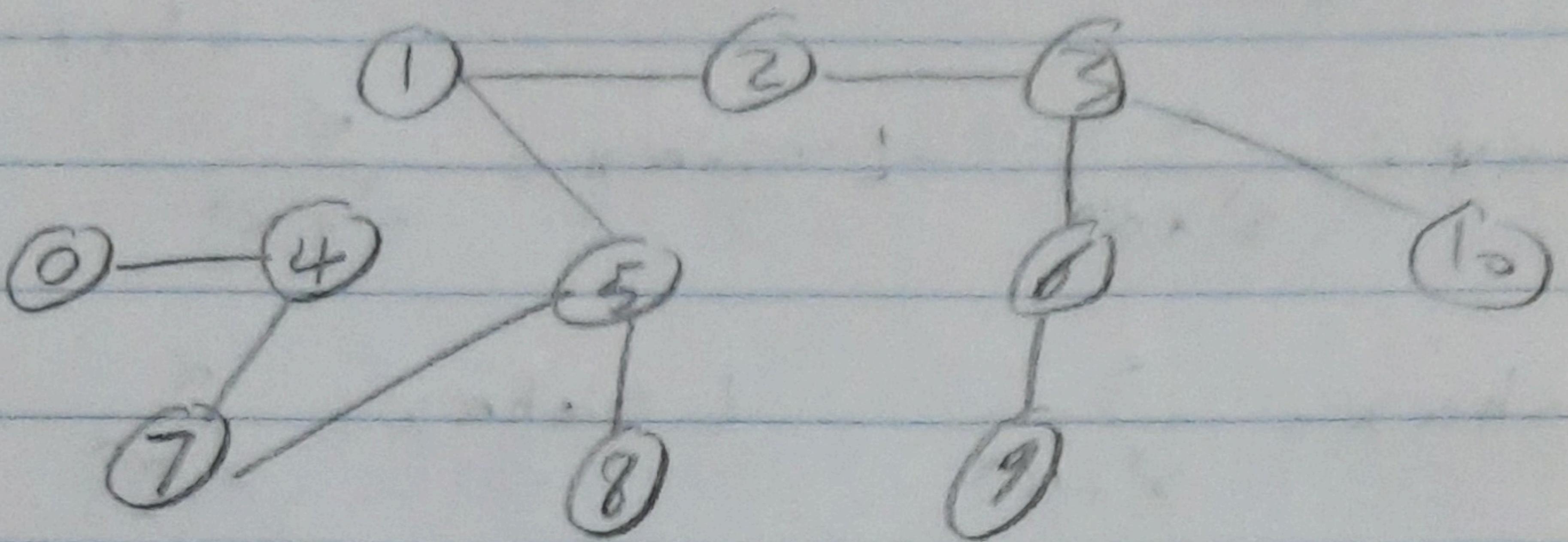


Prim's:

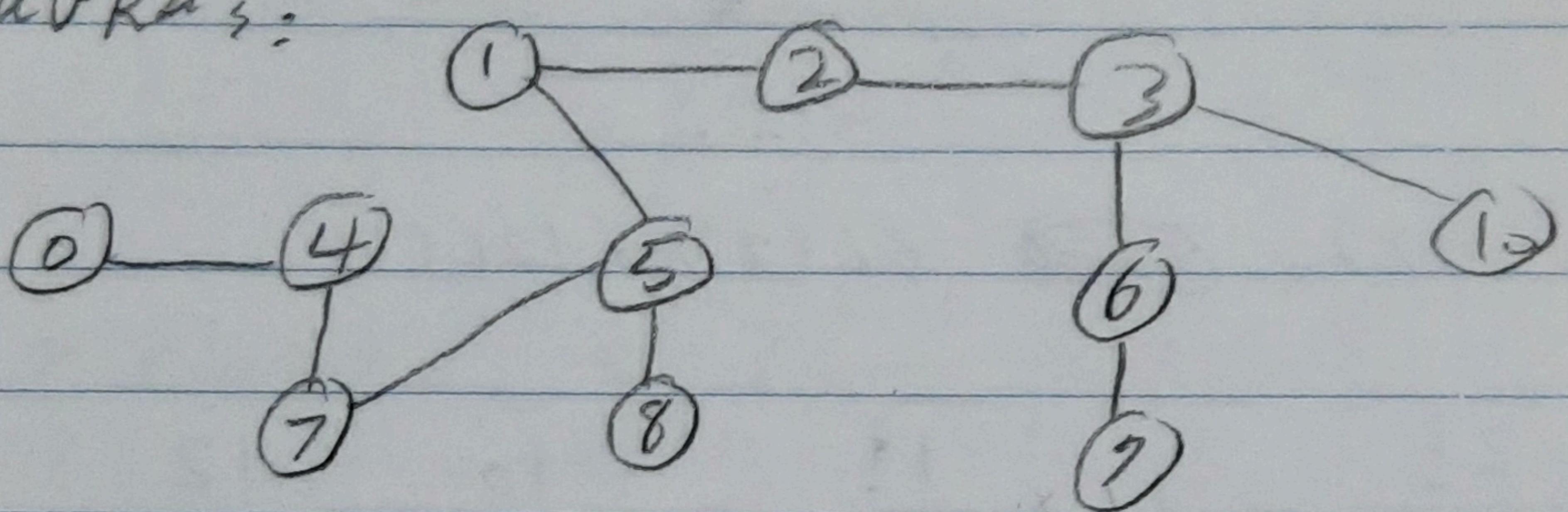
گراف راچست دارنی تمرین:



Kruskal's:



Bruvka's:



	A	B	C	D	E	F	G	H	
A	0	1	1	1	0	0	0	0	A → B → C → D
B	1	0	1	0	0	1	0	0	B → A → C → F
C	1	1	0	1	1	0	0	0	C → A → B → D → E
D	1	0	1	0	0	0	0	0	D → A → C
E	0	0	1	0	0	1	1	1	E → C → F → G → H
F	0	1	0	0	1	0	1	0	F → B → E → G
G	0	0	0	0	1	1	0	0	G → E → F
H	0	0	0	0	1	0	0	0	H → E

	A	B	C	D	E	F	G	H	I	
A	0	1	1	0	0	0	0	0	A → B → C	
B	0	0	0	1	0	0	0	1	0	B → D → H
C	0	0	0	1	1	0	0	0	0	C → D → E
D	0	0	0	0	0	0	0	1	0	D → H
E	0	0	0	0	0	1	0	0	0	E → G
F	0	0	0	0	0	1	0	1	0	F → G → I
G	0	0	1	0	0	0	0	0	0	G → C
H	0	0	0	0	0	1	0	0	0	H → G
I	0	0	1	0	0	0	0	0	0	I → C

Depth

A → B → E → G

(7)

C → E → H

D

Breadth:

A, B → C → D, F → E, G → H

Depth:

A → B → H → G, C → D, E → G → F → I

Breadth:

A → B → C, D → H → E, G, F, I